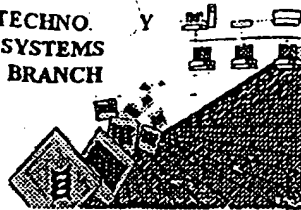


## **RAW SEQUENCE LISTING** **ERROR REPORT**

BIOTECHNO.  
SYSTEMS  
BRANCH



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:

Source:

Date Processed by STIC:

10/817,431  
FNU  
4/8/04

**THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.**

**PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:**

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

**FOR CRF SUBMISSION AND PATENT IN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221**

**Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221**

**TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:**

**<http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm>**

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

**Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:**

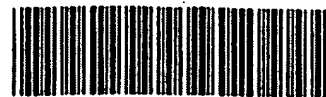
1. EFS-Bio (<<http://www.uspto.gov/efc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03

**BEST AVAILABLE COPY**

## Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: 10/8/7, 431
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE		
1 _____ Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 _____ Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 _____ Misaligned Amino Numbering	The numbering under each 5 <sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 _____ Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 _____ Variable Length	Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 _____ PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 _____ Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION: SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped  Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 _____ Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 _____ Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 _____ Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 _____ Use of <220>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 00/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 _____ PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 _____ Misuse of n/Xaa	"n" can only represent a single nucleotide. "Xaa" can only represent a single amino acid	



IFWO

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/817,431

DATE: 04/08/2004  
TIME: 16:14:49.

Input Set : A:\SEQUENCE LISTING.txt  
Output Set: N:\CRF4\04082004\J817431.raw

4 <110> APPLICANT: Degussa AG  
7 <120> TITLE OF INVENTION: Process for the production of L-amino acids using strains of  
the  
8 Enterobacteriaceae family  
11 <130> FILE REFERENCE: 020489 BT  
C--> 14 <140> CURRENT APPLICATION NUMBER: US/10/817,431  
C--> 14 <141> CURRENT FILING DATE: 2004-04-05  
14 <160> NUMBER OF SEQ ID NOS: 8  
17 <170> SOFTWARE: PatentIn version 3.1  
20 <210> SEQ ID NO: 1  
21 <211> LENGTH: 30  
22 <212> TYPE: DNA  
23 <213> ORGANISM: Synthetic sequence  
26 <220> FEATURE:  
W--> 27 <221> NAME/KEY: Primer  
28 <222> LOCATION: (1)..(30)  
29 <223> OTHER INFORMATION: yfid1  
32 <220> FEATURE:  
W--> 33 <221> NAME/KEY: Restriction site  
34 <222> LOCATION: (9)..(14)  
35 <223> OTHER INFORMATION: XbaI site  
38 <400> SEQUENCE: 1  
39 gaacaaatct agaaattaag ccggggagggc  
41 <210> SEQ ID NO: 2  
42 <211> LENGTH: 24  
43 <212> TYPE: DNA  
44 <213> ORGANISM: Synthetic sequence  
47 <220> FEATURE:  
W--> 48 <221> NAME/KEY: Primer  
49 <222> LOCATION: (1)..(24)  
50 <223> OTHER INFORMATION: yfid2  
53 <220> FEATURE:  
W--> 54 <221> NAME/KEY: Restriction site  
55 <222> LOCATION: (8)..(13)  
56 <223> OTHER INFORMATION: HindIII site  
59 <400> SEQUENCE: 2  
60 gctacttaag ctttacaggc ttcc  
62 <210> SEQ ID NO: 3  
64 <211> LENGTH: 431  
65 <212> TYPE: DNA  
66 <213> ORGANISM: Escherichia coli  
69 <220> FEATURE:  
W--> 70 <221> NAME/KEY: yfid PCR product  
71 <222> LOCATION: (1)..(431)

Does Not Comply  
Corrected Diskette Needed

Invalid  
Response

mandatory <213> Response  
has to be either Art/SRI/All  
Unknown or Genus/Species,  
Please see item #  
10 on error summary  
sheet.

## RAW SEQUENCE LISTING

DATE: 04/08/2004

PATENT APPLICATION: US/10/817,431

TIME: 16:14:49

Input Set : A:\SEQUENCE LISTING.txt

Output Set: N:\CRF4\04082004\J817431.raw

72 &lt;223&gt; OTHER INFORMATION:

75 &lt;220&gt; FEATURE:

76 &lt;221&gt; NAME/KEY: CDS

77 &lt;222&gt; LOCATION: (36)..(419)

78 &lt;223&gt; OTHER INFORMATION: open reading frame yfiD

W--&gt; 81 &lt;400&gt; 3

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82 gaacaaatct agaaattaag ccgaggagggc atcac atg att aca ggt atc cag      53
83                                     Met Ile Thr Gly Ile Gln
84                                     1           5
86 att act aaa gcc gct aac gac gat ctg ctg aac tct ttc tgg ctg ctg      101
87 Ile Thr Lys Ala Ala Asn Asp Asp Leu Leu Asn Ser Phe Trp Leu Leu
88             10             15             20
90 gac agc gaa aaa ggc gaa gcg cgt tgc atc gtt gca aaa gca ggt tat      149
91 Asp Ser Glu Lys Gly Glu Ala Arg Cys Ile Val Ala Lys Ala Gly Tyr
92             25             30             35
94 gca gaa gat gaa gtg gtt gca gta agc aaa ctg ggt gac att gaa tac      197
95 Ala Glu Asp Glu Val Val Ala Val Ser Lys Leu Gly Asp Ile Glu Tyr
96             40             45             50
98 cgt gaa gtt cca gta gaa gtg aaa cca gaa gtt cgc gtt gaa ggt ggt      245
99 Arg Glu Val Pro Val Glu Val Lys Pro Glu Val Arg Val Glu Gly Gly
100 55             60             65             70
102 caa cac ctg aac gtt aac gtt ctg cgt cgc gaa act ctg gaa gat gca      293
103 Gln His Leu Asn Val Asn Val Leu Arg Arg Glu Thr Leu Glu Asp Ala
104             75             80             85
106 gtt aag cat ccg gaa aaa tat ccg cag ctg acc atc cgt gta tcc ggt      341
107 Val Lys His Pro Glu Lys Tyr Pro Gln Leu Thr Ile Arg Val Ser Gly
108             90             95             100
110 tat gca gtt cgc ttt aac tct ctg act ccg gaa cag cag cgc gac gtt      389
111 Tyr Ala Val Arg Phe Asn Ser Leu Thr Pro Glu Gln Gln Arg Asp Val
112             105             110             115
114 atc gct cgt acc ttt act gaa agc ctg taa agcttaagta gc      431
115 Ile Ala Arg Thr Phe Thr Glu Ser Leu
116             120             125
119 <210> SEQ ID NO: 4
120 <211> LENGTH: 127
121 <212> TYPE: PRT
122 <213> ORGANISM: Escherichia coli
125 <400> SEQUENCE: 4
126 Met Ile Thr Gly Ile Gln Ile Thr Lys Ala Ala Asn Asp Asp Leu Leu
127 1           5           10           15
129 Asn Ser Phe Trp Leu Leu Asp Ser Glu Lys Gly Glu Ala Arg Cys Ile
130             20             25             30
132 Val Ala Lys Ala Gly Tyr Ala Glu Asp Glu Val Val Ala Val Ser Lys
133             35             40             45
135 Leu Gly Asp Ile Glu Tyr Arg Glu Val Pro Val Glu Val Lys Pro Glu
136             50             55             60
138 Val Arg Val Glu Gly Gly Gln His Leu Asn Val Asn Val Leu Arg Arg
139 65             70             75             80
141 Glu Thr Leu Glu Asp Ala Val Lys His Pro Glu Lys Tyr Pro Gln Leu
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# RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/817,431

DATE: 04/08/2004

TIME: 16:14:49

Input Set : A:\SEQUENCE LISTING.txt

Output Set: N:\CRF4\04082004\J817431.raw

142                    85                    90                    95  
 144 Thr Ile Arg Val Ser Gly Tyr Ala Val Arg Phe Asn Ser Leu Thr Pro  
 145                    100                    105                    110  
 147 Glu Gln Gln Arg Asp Val Ile Ala Arg Thr Phe Thr Glu Ser Leu  
 148                    115                    120                    125  
 150 <210> SEQ ID NO: 5  
 151 <211> LENGTH: 28  
 152 <212> TYPE: DNA  
 153 <213> ORGANISM: Synthetic sequence  
 156 <220> FEATURE:  
 W--> 157 <221> NAME/KEY: Primer  
 158 <222> LOCATION: (1)..(28)  
 159 <223> OTHER INFORMATION: pflB1  
 162 <220> FEATURE:  
 W--> 163 <221> NAME/KEY: Restriction site  
 164 <222> LOCATION: (5)..(10)  
 165 <223> OTHER INFORMATION: XbaI site  
 168 <400> SEQUENCE: 5  
 169 ccactctaga aggtaggtgt tacatgtc 28  
 171 <210> SEQ ID NO: 6  
 172 <211> LENGTH: 27  
 173 <212> TYPE: DNA  
 174 <213> ORGANISM: Synthetic sequence  
 177 <220> FEATURE:  
 W--> 178 <221> NAME/KEY: Primer  
 179 <222> LOCATION: (1)..(27)  
 180 <223> OTHER INFORMATION: pflB2  
 183 <220> FEATURE:  
 W--> 184 <221> NAME/KEY: Restriction site  
 185 <222> LOCATION: (13)..(18)  
 186 <223> OTHER INFORMATION: HindIII site  
 189 <400> SEQUENCE: 6  
 190 cgatttcagt caaagcttat tacatag 27  
 193 <210> SEQ ID NO: 7  
 194 <211> LENGTH: 2325  
 195 <212> TYPE: DNA  
 196 <213> ORGANISM: Escherichia coli  
 199 <220> FEATURE:  
 W--> 200 <221> NAME/KEY: pflB PCR product  
 201 <222> LOCATION: (1)..(2325)  
 202 <223> OTHER INFORMATION:  
 205 <220> FEATURE:  
 206 <221> NAME/KEY: CDS  
 207 <222> LOCATION: (24)..(2306)  
 208 <223> OTHER INFORMATION: pflB coding region  
 W--> 211 <400> 7  
 212 ccactctaga aggtaggtgt tac atg tcc gag ctt aat gaa aag tta gcc aca 53  
 213                    Met Ser Glu Leu Asn Glu Lys Leu Ala Thr  
 214                    1                    5                    10

The type of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

# RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/817,431

DATE: 04/08/2004

TIME: 16:14:49

Input Set : A:\SEQUENCE LISTING.txt

Output Set: N:\CRF4\04082004\J817431.raw

216	gcc	tgg	gaa	ggt	ttt	acc	aaa	ggt	gac	tgg	cag	aat	gaa	'gta	aac	gtc	101
217	Ala	Trp	Glu	Gly	Phe	Thr	Lys	Gly	Asp	Trp	Gln	Asn	Glu	Val	Asn	Val	
218					15					20					25		
220	cgt	gac	ttc	att	cag	aaa	aac	tac	act	ccg	tac	gag	ggt	gac	gag	tcc	149
221	Arg	Asp	Phe	Ile	Gln	Lys	Asn	Tyr	Thr	Pro	Tyr	Glu	Gly	Asp	Glu	Ser	
222				30					35					40			
224	ttc	ctg	gct	ggc	gct	act	gaa	gcg	acc	acc	acc	ctg	tgg	gac	aaa	gta	197
225	Phe	Leu	Ala	Gly	Ala	Thr	Glu	Ala	Thr	Thr	Thr	Leu	Trp	Asp	Lys	Val	
226			45					50					55				
228	atg	gaa	ggc	ggt	aaa	ctg	gaa	aac	cgc	act	cac	gcg	cca	ggt	gac	ttt	245
229	Met	Glu	Gly	Val	Lys	Leu	Glu	Asn	Arg	Thr	His	Ala	Pro	Val	Asp	Phe	
230		60					65				70						
232	gac	acc	gct	ggt	gct	tcc	acc	atc	acc	tct	cac	gac	gct	ggc	tac	atc	293
233	Asp	Thr	Ala	Val	Ala	Ser	Thr	Ile	Thr	Ser	His	Asp	Ala	Gly	Tyr	Ile	
234	75				80					85				90			
236	aac	aag	cag	ctt	gag	aaa	atc	ggt	ggt	ctg	cag	act	gaa	gct	ccg	ctg	341
237	Asn	Lys	Gln	Leu	Glu	Lys	Ile	Val	Gly	Leu	Gln	Thr	Glu	Ala	Pro	Leu	
238				95					100					105			
240	aaa	cgt	gct	ctt	atc	ccg	ttc	ggt	ggt	atc	aaa	atg	atc	gaa	ggt	tcc	389
241	Lys	Arg	Ala	Leu	Ile	Pro	Phe	Gly	Gly	Ile	Lys	Met	Ile	Glu	Gly	Ser	
242			110					115						120			
244	tgc	aaa	gcg	tac	aac	cgc	gaa	ctg	gat	ccg	atg	atc	aaa	aaa	atc	ttc	437
245	Cys	Lys	Ala	Tyr	Asn	Arg	Glu	Leu	Asp	Pro	Met	Ile	Lys	Lys	Ile	Phe	
246			125					130					135				
248	act	gaa	tac	cgt	aaa	act	cac	aac	cag	ggc	gtg	ttc	gac	ggt	tac	act	485
249	Thr	Glu	Tyr	Arg	Lys	Thr	His	Asn	Gln	Gly	Val	Phe	Asp	Val	Tyr	Thr	
250		140					145				150						
252	ccg	gac	atc	ctg	cgt	tgc	cgt	aaa	tct	ggt	ggt	ctg	acc	ggt	ctg	cca	533
253	Pro	Asp	Ile	Leu	Arg	Cys	Arg	Lys	Ser	Gly	Val	Leu	Thr	Gly	Leu	Pro	
254	155				160					165				170			
256	gat	gca	tat	ggc	cgt	ggc	cgt	atc	atc	ggt	gac	tac	cgt	cgc	ggt	gcg	581
257	Asp	Ala	Tyr	Gly	Arg	Gly	Arg	Ile	Ile	Gly	Asp	Tyr	Arg	Arg	Val	Ala	
258			175						180					185			
260	ctg	tac	ggt	atc	gac	tac	ctg	atg	aaa	gac	aaa	ctg	gca	cag	ttc	act	629
261	Leu	Tyr	Gly	Ile	Asp	Tyr	Leu	Met	Lys	Asp	Lys	Leu	Ala	Gln	Phe	Thr	
262			190					195					200				
264	tct	ctg	cag	gct	gat	ctg	gaa	aac	ggc	gta	aac	ctg	gaa	cag	act	atc	677
265	Ser	Leu	Gln	Ala	Asp	Leu	Glu	Asn	Gly	Val	Asn	Leu	Glu	Gln	Thr	Ile	
266			205					210					215				
268	cgt	ctg	cgc	gaa	gaa	atc	gct	gaa	cag	cac	cgc	gct	ctg	ggt	cag	atg	725
269	Arg	Leu	Arg	Glu	Glu	Ile	Ala	Glu	Gln	His	Arg	Ala	Leu	Gly	Gln	Met	
270		220					225				230						
272	aaa	gaa	atg	gct	gcg	aaa	tac	ggc	tac	gac	atc	tct	ggt	ccg	gct	acc	773
273	Lys	Glu	Met	Ala	Ala	Lys	Tyr	Gly	Tyr	Asp	Ile	Ser	Gly	Pro	Ala	Thr	
274	235				240					245				250			
276	aac	gct	cag	gaa	gct	atc	cag	tgg	act	tac	ttc	ggc	tac	ctg	gct	gct	821
277	Asn	Ala	Gln	Glu	Ala	Ile	Gln	Trp	Thr	Tyr	Phe	Gly	Tyr	Leu	Ala	Ala	
278			255						260				265				
280	ggt	aag	tct	cag	aac	ggt	gct	gca	atg	tcc	ttc	ggt	cgt	acc	tcc	acc	869

# RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/817,431

DATE: 04/08/2004

TIME: 16:14:49

Input Set : A:\SEQUENCE LISTING.txt

Output Set: N:\CRF4\04082004\J817431.raw

281	Val	Lys	Ser	Gln	Asn	Gly	Ala	Ala	Met	Ser	Phe	Gly	Arg	Thr	Ser	Thr	
282				270					275					280			
284	ttc	ctg	gat	gtg	tac	atc	gaa	cgt	gac	ctg	aaa	gct	ggc	aag	atc	acc	917
285	Phe	Leu	Asp	Val	Tyr	Ile	Glu	Arg	Asp	Leu	Lys	Ala	Gly	Lys	Ile	Thr	
286			285					290					295				
288	gaa	caa	gaa	gcg	cag	gaa	atg	gtt	gac	cac	ctg	gtc	atg	aaa	ctg	cgt	965
289	Glu	Gln	Glu	Ala	Gln	Glu	Met	Val	Asp	His	Leu	Val	Met	Lys	Leu	Arg	
290		300					305					310					
292	atg	gtt	cgc	ttc	ctg	cgt	act	ccg	gaa	tac	gat	gaa	ctg	ttc	tct	ggc	1013
293	Met	Val	Arg	Phe	Leu	Arg	Thr	Pro	Glu	Tyr	Asp	Glu	Leu	Phe	Ser	Gly	
294	315					320					325					330	
296	gac	ccg	atc	tgg	gca	acc	gaa	tct	atc	ggt	ggt	atg	ggc	ctc	gac	ggt	1061
297	Asp	Pro	Ile	Trp	Ala	Thr	Glu	Ser	Ile	Gly	Gly	Met	Gly	Leu	Asp	Gly	
298				335						340				345			
300	cgt	acc	ctg	gtt	acc	aaa	aac	agc	ttc	cgt	ttc	ctg	aac	acc	ctg	tac	1109
301	Arg	Thr	Leu	Val	Thr	Lys	Asn	Ser	Phe	Arg	Phe	Leu	Asn	Thr	Leu	Tyr	
302				350					355					360			
304	acc	atg	ggt	ccg	tct	ccg	gaa	ccg	aac	atg	acc	att	ctg	tgg	tct	gaa	1157
305	Thr	Met	Gly	Pro	Ser	Pro	Glu	Pro	Asn	Met	Thr	Ile	Leu	Trp	Ser	Glu	
306			365				370						375				
308	aaa	ctg	ccg	ctg	aac	ttc	aag	aaa	ttc	gcc	gct	aaa	gtg	tcc	atc	gac	1205
309	Lys	Leu	Pro	Leu	Asn	Phe	Lys	Lys	Phe	Ala	Ala	Lys	Val	Ser	Ile	Asp	
310		380				385						390					
312	acc	tct	tct	ctg	cag	tat	gag	aac	gat	gac	ctg	atg	cgt	ccg	gac	ttc	1253
313	Thr	Ser	Ser	Leu	Gln	Tyr	Glu	Asn	Asp	Asp	Leu	Met	Arg	Pro	Asp	Phe	
314	395				400					405					410		
316	aac	aac	gat	gac	tac	gct	att	gct	tgc	tgc	gta	agc	ccg	atg	atc	gtt	1301
317	Asn	Asn	Asp	Asp	Tyr	Ala	Ile	Ala	Cys	Cys	Val	Ser	Pro	Met	Ile	Val	
318				415					420					425			
320	ggt	aaa	caa	atg	cag	ttc	ttc	ggt	gcg	cgt	gca	aac	ctg	gcg	aaa	acc	1349
321	Gly	Lys	Gln	Met	Gln	Phe	Phe	Gly	Ala	Arg	Ala	Asn	Leu	Ala	Lys	Thr	
322				430					435					440			
324	atg	ctg	tac	gca	atc	aac	ggc	ggc	gtt	gac	gaa	aaa	ctg	aaa	atg	cag	1397
325	Met	Leu	Tyr	Ala	Ile	Asn	Gly	Gly	Val	Asp	Glu	Lys	Leu	Lys	Met	Gln	
326			445				450						455				
328	gtt	ggt	ccg	aag	tct	gaa	ccg	atc	aaa	ggc	gat	gtc	ctg	aac	tat	gat	1445
329	Val	Gly	Pro	Lys	Ser	Glu	Pro	Ile	Lys	Gly	Asp	Val	Leu	Asn	Tyr	Asp	
330		460				465						470					
332	gaa	gtg	atg	gag	cgc	atg	gat	cac	ttc	atg	gac	tgg	ctg	gct	aaa	cag	1493
333	Glu	Val	Met	Glu	Arg	Met	Asp	His	Phe	Met	Asp	Trp	Leu	Ala	Lys	Gln	
334	475				480						485				490		
336	tac	atc	act	gca	ctg	aac	atc	atc	cac	tac	atg	cac	gac	aag	tac	agc	1541
337	Tyr	Ile	Thr	Ala	Leu	Asn	Ile	Ile	His	Tyr	Met	His	Asp	Lys	Tyr	Ser	
338				495					500					505			
340	tac	gaa	gcc	tct	ctg	atg	gcg	ctg	cac	gac	cgt	gac	gtt	atc	cgc	acc	1589
341	Tyr	Glu	Ala	Ser	Leu	Met	Ala	Leu	His	Asp	Arg	Asp	Val	Ile	Arg	Thr	
342				510					515					520			
344	atg	gcg	tgt	ggt	atc	gct	ggt	ctg	tcc	gtt	gct	gct	gac	tcc	ctg	tct	1637
345	Met	Ala	Cys	Gly	Ile	Ala	Gly	Leu	Ser	Val	Ala	Ala	Asp	Ser	Leu	Ser	

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/817,431

DATE: 04/08/2004

TIME: 16:14:50

Input Set : A:\SEQUENCE LISTING.txt

Output Set: N:\CRF4\04082004\J817431.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application No  
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:27 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1  
L:33 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:1  
L:48 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:2  
L:54 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:2  
L:70 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:3  
L:81 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:3,Line#:72  
L:157 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:5  
L:163 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:5  
L:178 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:6  
L:184 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:6  
L:200 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:7  
L:211 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:7,Line#:202